

State of Hawaii
DEPARTMENT OF LAND AND NATURAL RESOURCES
Division of Aquatic Resources
Honolulu, Hawaii 96813

October 24, 2008

Board of Land
and Natural Resources
Honolulu, O'ahu

Request for Approval of a Special Activity Permit for Dr. Russell Brainard, NOAA Pacific Island Fisheries Center's Coral Reef Ecosystems Division (CRED), to Conduct Scientific Collection Activities in Certain State Marine Waters of the Main Hawaiian Islands, on Coral, Marine Algae, Invertebrates, and Marine Sediments

Submitted herewith for your consideration and approval is a Special Activity Permit as authorized in Section 187A-6, Hawaii Revised Statutes (HRS). Section 187A-6 provides that the Department may issue permits no longer than one year (from date of issue) to any person to take aquatic life, possess or use fishing gear, or engage in any feeding, watching, or other such non-consumptive activity related to aquatic resources otherwise prohibited by law for scientific, educational, management, or propagation purposes, subject also to Chapter 195D and any other restrictions the Department deems desirable.

Such permits are usually sought by University researchers and their students, professional biologists, consultants, aquariums, or public and private school teachers to either collect aquatic life otherwise considered unlawful, or to use gear otherwise considered unlawful, primarily for the purposes of study or education. Dr. Brainard proposes to continue monitoring reefs around the Main Hawaiian Islands as part of an effort to collect information for NOAA's 2010 Coral Reef Ecosystem Monitoring Report of the Hawaiian Archipelago. As part of their monitoring effort, they have identified a need to collect unidentified species of invertebrates and marine algae for taxonomic purposes, samples of coral tissue for coral disease analysis, marine sediments and water samples for microbiological study and to incubate *vibrio* bacteria cultures, and to place and/or service existing equipment onto State submerged lands to listen for marine sounds associated with coral reefs and to serve as recruitment devices for collecting small organisms to assess biodiversity. Primary objectives of this research include monitoring, assessing and evaluating coral reef organism abundance, density, size class distribution and diversity within the Main Hawaiian Islands (MHI) that were initiated in 2005; monitor, assess, and evaluate the abundance and geographical distribution of diseases and diseased corals; procure samples of diseased and healthy coral tissues to continue description of gross and microscopic morphology of disease in the MHI; and enhance the knowledge of oceanographic conditions influencing coral reef ecosystems in the MHI.


The Division of Aquatic Resources has reviewed the application for impact and made recommendations to conserve resources as well as to minimize impacts to those resources.

Among other permit provisions, the Division will require photo-documentation of each habitat impacted both pre- and post-installation of any equipment or pins into the substrate, and limitations on range of collection and other activities allowed. Strong restrictions have been placed on the number and weight of organisms to be allowed to be collected. While a number of the organisms to be collected are not regulated by the State, their life history involves them being associated with live rock, which is fully regulated against take or damage under HAR 13-95-71; the Division has placed special restrictions within this permit to minimize damage to any live rock or coral encountered during these activities.

RECOMMENDATION:

"That the Board Authorize and Approve, With Stated Conditions, This Special Activity Permit for Dr. Russell Brainard, NOAA Pacific Island Fisheries Center's Coral Reef Ecosystems Division (CRED), to Conduct Scientific Collection Activities in Certain State Marine Waters, Main Hawaiian Islands Only, on Coral, Marine Algae, Invertebrates, and Marine Sediments; and to install and maintain listed scientific gear or transecting pins onto State submerged lands."

Respectfully submitted,

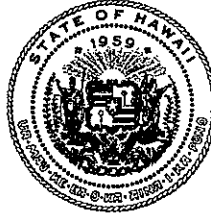


DAN POLHEMUS
Administrator

APPROVED FOR SUBMITTAL:



LAURA H. THIELEN
Chairperson



SPECIAL
ACTIVITY
PERMIT

SAP 2009-40

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
HONOLULU, HAWAII 96813

Date Issued 10/24/08

Not Valid After 3/24/09

SPECIAL ACTIVITY PERMIT

The Department of Land and Natural Resources (the Department) hereby grants permission for certain activities involving aquatic life belonging to the people of Hawai'i under the authority of Section 187A-6, Hawai'i Revised Statutes, and other applicable laws, to:

Permittee: Dr. Russell E. Brainard
NOAA Pacific Fisheries Center,
Coral Reef Ecosystems Division (CRED)
1601 Kapiolani Blvd, Suite 1110 (808) 944-2115
Honolulu, HI 96814

This permit is issued, subject to the general and special conditions below, to take various benthic invertebrates, coral, live rock, cyanobacteria and seaweeds, subject to the other conditions of this permit. This permit allows the **TAKE, CATCH, POSSESS, OR KILL** certain aquatic life from waters of the State, and the **PLACEMENT** of gear/structures onto the ocean bottom as follows below.

This permit, signed by the Department, authorizes the permittee, and only the designated assistants on the final page(s) of, or attachments to, this permit, to engage in activities otherwise prohibited by law, subject to the general and special conditions.

TYPES OF AQUATIC LIFE	SCIENTIFIC NAME	LIMITS	GEAR	LOCATIONS
Coral	<i>Montipora capitata</i>	5 adult colony fragments per day only, no larger than 7	Hand only, along with Special Conditions	Main Hawaiian Islands (MHI) only ; along with

	<i>Porites lobata</i> <i>Pocillopora meandrina</i> <i>P. eydouxi</i>	cm longest axis, maximum of 125 samples total; along with Special Conditions A, C & E.	D.	Special Conditions B.
Marine Algae	<i>Various spp.</i> (BUT EXCLUDING ALL CRUSTOSE CORALLINE ALGAE)	1 kg wet weight per day; along with Special Conditions A, C & E.	Hand only, no specimens with holdfasts; along with Special Conditions D.	MHI only ; along with Special Conditions B.
Invertebrates	<i>Various spp.</i> (BUT EXCLUDING ALL REGULATED INVERTEBRATES)	Maximum of 10 individuals per day, maximum of 250; along with Special Conditions A, C & E.	Hand only; along with Special Conditions D.	MHI —ONLY ; along with Special Conditions B.
Marine Sediments		Maximum of 1 gallon per day; along with Special Conditions A, C & E.	Hand only; along with Special Conditions D.	MHI —ONLY ; along with Special Conditions B.

PART I. GENERAL CONDITIONS

1. The permittee and each assistant will not make the Department or the State of Hawai'i liable in any way for any claim of personal injury or property damage which may result from activity authorized by this permit; the permittee and each assistant agree to hold the Department and State harmless against any and all claims of injury, death or damage resulting from actions or omissions under this permit.
2. This permit conveys a privilege to engage in **ONLY** those activities under the jurisdiction of the Department. The permittee and each assistant are responsible for complying with all applicable

authorities County, State and Federal requirements. This permit does NOT convey any privilege of access over or through private property.

3. The permittee and each assistant is individually responsible and accountable for his or her actions while conducting activities authorized by this permit; the permittee is additionally responsible and accountable for the actions of each assistant.
4. Any person whose name does not appear on this permit and is conducting any activity described herein is subject to prosecution for violation of State laws.
5. The permittee may request changes to the permit. Any such request to make changes to the permit must be made in writing and received by the Department at least forty-five days prior to the change. No change may be implemented without written approval from the Department. The addition of new assistants will require each individual to sign the Attachment page stating that they have read, understood, and agree to abide by all general and special permit conditions. Original signed versions of the Attachment page must be returned to the Department for validation; once approved, such persons are added to the permit.
6. This permit is neither transferable nor assignable to another person.
7. The permittee or assistant must carry a copy of this permit on location while conducting activities authorized by this permit.
8. Authority granted by this permit **ends** on the expiration date (i.e. "Not Valid After") on the first page of this permit. Within **one month** of the expiration date, or the cessation of activities covered under this permit (whichever comes first), the permittee agrees to **return this permit to the Division with a Collecting Report completed for the full duration of this permit**, reporting results of *all* collecting and other activities covered under this permit, and other information if required, under the special conditions.
9. The permittee and assistants agree to provide access to data obtained under this permit upon request of the Division of Aquatic Resources (the Division), to provide the Division one copy of each report prepared with such data and published for distribution, and to allow Department staff to inspect on permittee's premises organisms collected under this permit, or organisms and/or substrate maintained with such organisms.
10. Violation of any condition of this permit by any person may be cause for immediate revocation of the permit; the person responsible may be subject to penalty as provided by law; violation may be cause also for denial of future permit applications.

PART II. SPECIAL CONDITIONS

- A. **GENERAL STATEMENT:** This permit authorizes collecting, killing, possessing and inter-island transport of dead stony coral, dead coral tissue, dead algae and invertebrates, from the Main Hawaiian Islands **ONLY**, and the installation of equipment and transect markers, subject to the other conditions of this permit.
- B. **LOCATIONS:** Collecting activities under this permit is limited to waters of the State of Hawai'i and is expressly prohibited at the following locations.

<u>ISLAND OF MAUI</u>	<u>ISLAND OF O'AHU</u>	<u>ISLAND OF HAWAI'I</u>
Kahului Harbor FMA ¹	Ala Wai Canal FMA	Hilo Bay FMA
Honolua-Mokuleia MLCD ²	Coconut Island MLR	Kealahakua Bay MLCD
Molokini MLCD	Diamond Head SFMA	Kailua Bay FMA
Ahihi-Kinau NAR ³	Haleiwa Harbor FMA	Kawiahae Harbor FMA
	Hanauma Bay MLCD	Old Kona Airport MLCD
<u>ISLAND OF LANA'I</u>	Heeiea Kea FMA	Lapakahi Bay MLCD
Manele Harbor FMA	Kapalama Canal FMA	Puako FMA
Manele-Hulopoe MLCD	Paiko Lagoon Wildlife Refuge	Waiakea PFA ⁴
	Pupukea MLCD	Wailea Bay MLCD
<u>ISLAND OF MOLOKA'I</u>	Waialua Bay FMA	Wailuku River FMA
Kaunakakai Harbor FMA	Waikiki MLCD	Wailoa River FMA
<u>ISLAND OF KAUAI</u>		Waiopae Tidepools MLCD
Ahukini Pier FMA		West Hawaii Regional Fishery Management Area (comprising 9 Fish Replenishment Areas)
Hanamaulu Bay FMA		

Kapaa Canal FMA		
Waikaena Canal FMA		
Waimea Pier & Bay FMA		

¹ FMA -Fisheries Management Area; ² MLCD - Marine Life Conservation District; ³NAR - Natural Area Reserve; ⁴ PFA - Public Fishing Area

NOTE: Any regulated activities to occur in waters surrounding the island of Kaho'olawe will also require written permission from the Kaho'olawe Island Reserve Commission.

C. **COLLECTING PRACTICES:** The permittee is responsible for persons engaging in activities under this permit behaving professionally and responsibly, in a manner which does not generate conflict with public or private sectors, including fishing and dive-tour industries and local communities.

1. Collecting activities under authority of this permit must be supervised directly, on site, by either Dr. Brainard or his appointed representative (who must be a signatory of this permit).
2. An approved alien species protocol will be filed with DAR prior to initiation of research activities. Protocol will include mechanisms for ensuring that the individuals listed on this permit do NOT serve as vectors for the transport or introduction of alien species through their activities. **This is specifically aimed at the collection, handling, and movement of alien seaweeds, invasive cyanobacteria and sponges that may be encountered as the researchers move from island to island under this permit, along with various marine organisms that may be taken in habitats containing the above invasive and alien marine species.**
3. **No extractive or invasive sampling will be done on or adjacent to any intact large (> 1 m diameter) live coral colony.** Specific efforts will be made to avoid damage to any large colonies of coral.
4. Except as specified expressly in an approved collecting plan, no organism unlawful for taking or possession by reason of size, under law or administrative rule, may be collected or utilized under this permit.

5. No coral species other than those listed on this permit will be collected or impacted by any activities conducted under this permit. No breakage of live coral or live rock will occur in order to collect non-scleractinian invertebrates or algae.
6. The Division may require the permittee to accommodate presence of an observer specified by the Division during collection and research activities. A record will be kept of each collection comprising specific location, date, species and amount collected; and in cases of return to ocean, the same information along with notification to DAR prior to the return activity. These records will be made available to the Division upon request.
7. **NOTICE:**
 - a. Collecting generally - the permittee must give notice, in form specified by the Department, to DAR neighbor island offices and to the neighbor island office of the Department's Division of Conservation and Resources Enforcement (DOCARE), at least 2 hours prior to initial commencement of any collection activity under this permit to take place on a neighbor island outside of the island of Oahu.
 - b. Mass mortality - the permittee must notify DAR O'ahu within one day of
 - 1) Any instance of major damage caused to coral or other marine natural resources as a result of collection or other research activities conducted under this permit.
 - 2) Any un-planned mass die-off of collected material after field collection.
 - c. Fragmentation - This permit provides for collection and manipulation of live coral and provides for selective breakage of portions of a live colony (fragmentation) in the field. Fragmentation in such a manner as does not result in **any additional harm** to the remainder of the colony is required.
 - d. Rare Species - The following *Porites* species require special permission from DAR prior to collection or impact under this permit: *Porites pukoensis*, *Porites duerdeni*, *Porites studeri*. The following *Montipora* species require special permission from DAR prior to collection under this permit: *Montipora dilitata*. The following *Pocillopora* species require special permission from DAR prior to collection under this permit: *Pocillopora ligulata*, *Pocillopora molokensis*.

D. GEAR AND METHODS

Use of any chemical substances pursuant to Section 188-23, Hawai'i Revised Statutes, **electrical shocking devices, or explosives remains expressly prohibited.**

1. No chemicals, as defined by HAR §13-75-7, will be used in State waters, or carried by personnel while in/under the water, or in small boats that researchers are operating on the water in.
2. **Autonomous Reef Monitoring Structures (ARMS)**
This permit allows for Autonomous Reef Monitoring Structures (ARMS) to be used in State waters; a ARM is a recruitment device designed to mimic natural recruitment substrate so that biodiversity can be measured without disturbing natural habitat. Each ARM will be no larger than 14" x 18" x 8" and will be anchored by no more than 4 PVC-encased lead weights placed on top of the ARM and not in contact with the substrate. This permit allows for the maintenance of existing ARM structures previously permitted by the Department and installation of a limited number of new ARMS to be placed on State submerged lands with the following conditions:
 - a. **No additional disturbance of any kind** occurs to bottom substrate or habitat from the maintenance of existing ARMS.
 - b. Dated and timed pre-maintenance and post-maintenance photos (including surrounding substrate) and accompanying GPS positions be provided for each ARMS that is serviced.
 - c. No more than 36 total new ARMS (in sets of 3 each) will be allowed with the following conditions:
 - 1). 9 ARMS (3 sets) off Mana Reef, Kaua'i; 9 ARMS (3 sets) off South Point, Hawai'i; 9 ARMS (3 sets) off south side of Lana'i; and 9 ARMS (3 sets) between Moku Manu and Makapu'u, O'ahu.
 - 2). No ARMS will be placed within 1 m of any existing large (> 1 m diameter) living coral head.
 - 3). No coral or live rock will be in any way harmed by the installation of any ARM.
 - 4). Each installation will include dated and timed pre-maintenance and post-maintenance photos (including surrounding substrate) and accompanying GPS positions.
 - 5). No installations will occur within any MLCD, NAR or Wildlife Refuge.
 - d. All weights used to anchor the ARMS will be encased in PVC.
3. **Ecological Acoustic Recorder Units (EAR)**
This permit allows for a limited number of Ecological Acoustic Recorder Units (EAR) to be used in State waters; a EAR is a small device designed to capture sounds on the ocean bottom. Each pvc-encased EAR will be no larger than 27" x 6" and will be anchored by a single, completely-sealed 200 lb lead weight with non-corroding attachment points (8" x 30"). This permit allows for the installation of a limited number of EARs to be placed on State submerged lands with the following conditions:
 - a. **No additional disturbance of any kind** occurs to coral, live rock or existing identified habitat from the installation.
 - b. Dated and timed pre-installation and post-installation photos (including surrounding substrate) and accompanying GPS positions be provided for each installation.

- c. No more than 5 EARS will be installed in 40' – 60' depth contour in sand or on bare substrate **ONLY**.
- d. Installations shall occur as follows: 1 off West Kaho'olawe; 1 off Southwest Kaho'olawe; 1 off MacGregor Point, Maui; 2 off the Big Island.
- e. No EAR will be placed within 1 m of any existing large (> 1 m diameter) living coral head.
- f. No coral or live rock will be in any way harmed by the installation of any EAR.
- g. No installations will occur within any MLCD, NAR or Wildlife Refuge.

4. Maintenance of Permanent Transects

This permit allows for limited maintenance of existing permanent transects established earlier by CRED in State waters. CRED permanent transects consist of 50 m long transects identified with a set of 12 stainless steel stakes driven into the substrate. This permit allows for the **maintenance ONLY** of existing transects, and does NOT allow for new transects to be established on State submerged lands, with the following conditions:

- a. **No additional disturbance of any kind** occurs to coral, live rock or existing identified habitats through the maintenance activities, with the exception that replacement stakes may be placed into substrate for those lost or broken.
- b. Each replacement will be documented with a description of why the replacement was necessary and dated and timed pre-installation and post-installation photos (including surrounding substrate) and accompanying GPS positions for each stake installed.
- c. No stakes will be placed atop, into, or immediately adjacent to, any existing large (> 1 m diameter) living coral head.

E. **USE OF ORGANISMS:** Organisms and sediment taken from Hawai'i waters under authority of this permit may be used only for scientific study on O'ahu Island, except as authorized by prior written approval of the Division (or as detailed above):

- 1. Organisms collected under authority of this permit may not be used for personal consumption or sale; organisms collected under this permit may not be traded, bartered or loaned to other individuals, institutions or entities;
- 2. Written approval must be obtained from the Division prior to
 - a. Purchasing or any other acquisition of regulated organisms (regardless of origin) alive from any other party,
 - b. Transporting any live organism (regulated or not) out-of-State, between islands, or outside of Kane'ohe Bay, O'ahu.
 - c. Exchanging or donating any organisms collected under this permit to any other person, party or organization;
- 3. The permittee may not convey in any fashion (including, but not limited to, selling, trading, or giving) any coral or live rock to any person or party in Hawai'i which does not already have a permit

from the Department authorizing possession of same and without direct, written approval from the Division.

- F. **REPORTS:** Upon expiration, the permittee must provide to the Division a final written report summarizing results of collecting activity carried out under this permit and the analysis of the data:
1. A cruise report, along with any information detailed above, shall be provided to DAR within two weeks of the cessation of the field activity (research cruise).
 2. The annual report should provide a written explanation as to how the collection of and/or impact to these regulated marine species for this activity is benefiting the State of Hawai'i in general and specifically, the improved management of the species impacted.
 3. The final report must describe, in form specified by the Department,
 - a. Names and total numbers/quantities of all specimens collected under this permit, along with specific collection location,
 - b. Their dispositions (e.g. on display; released/returned to the ocean; died),
 - c. Installation, maintenance and/or removal of any equipment, permanent transect or other gear placed onto State submerged lands,
 - d. **Description of any additional benefits** beyond the scientific analysis provided to the Division or the public during the period;
 4. An inventory of organisms (dead or alive) present at the facility or with the permittee the end of the report period, in form acceptable to the Division, must accompany the annual report;
 5. **The annual report is due at the Division's Honolulu office within one calendar month after expiration of the permit, or the cessation of activities covered under this permit (whichever comes first), and is required prior to any renewal of this permit.**

VALIDATING SIGNATURE

LAURA H. THIELEN, Chairperson

Board of Land and Natural Resources

cc: DLNR Division of Conservation and Resources Enforcement

Special Agent in Charge, US Fish and Wildlife Service Honolulu

ACKNOWLEDGING SIGNATURES


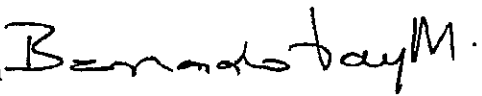

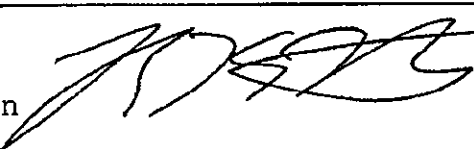
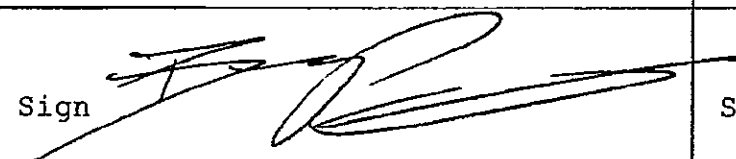
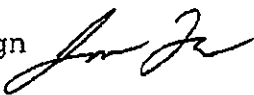
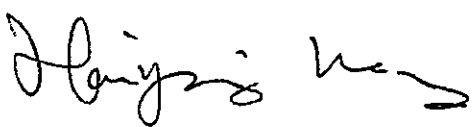

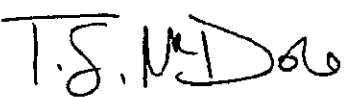
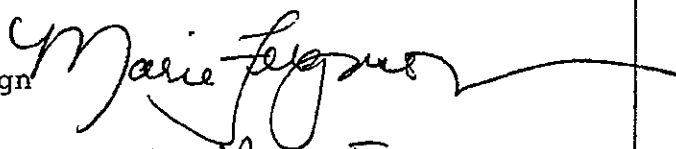
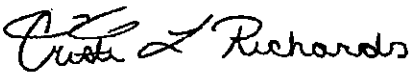
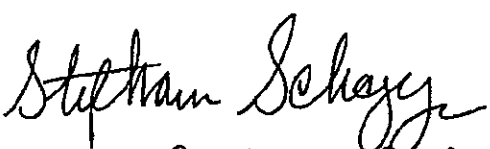
By signature below, I attest that I have read and understand the General and Special Conditions of Special Activity Permit SAP 2009-40 and that, further, I agree to comply with all of these conditions when collecting under authority of this permit.





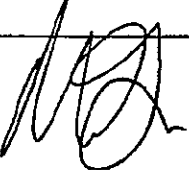


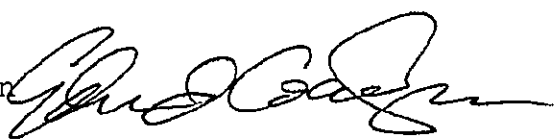

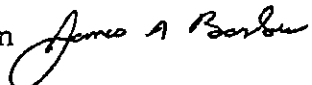
Russell Brainard

Primary Permittee

Designated Assistants

<p>Sign </p> <p>Type name KEVIN LINO</p>	<p>Sign </p> <p>Type name Bernardo Vargos Angel</p>
<p>Sign </p> <p>Type or print Daniel Merritt</p>	<p>Sign </p> <p>Type or print Ron K. Hoek</p>
<p>Sign </p> <p>Type or print Benjamin Richards</p>	<p>Sign </p> <p>Type or print Jason Heller</p>
<p>Sign </p> <p>Type or print Haiying Wang</p>	<p>Sign </p> <p>Type or print NOAH Pomeroy</p>
<p>Sign </p> <p>Type or print Tracey McDole</p>	<p>Sign </p> <p>Type or print Marie Ferguson</p>
<p>Sign </p> <p>Type or print Cristi Richards</p>	<p>Sign </p> <p>Type or print Stephanie Schopmeyer</p>

Designated Assistants

<p>Sign </p> <p>Type name KOSTA STAMOULIS</p>	<p>Sign </p> <p>Type name Kevin O'Brien</p>
<p>Sign </p> <p>Type or print MAX SUDNOVSKY</p>	<p>Sign </p> <p>Type or print FRANK MANCINI</p>
<p>Sign </p> <p>Type or print Marc Nabon</p>	<p>Sign </p> <p>Type or print EDMUND COCCAONA</p>
<p>Sign </p> <p>Type or print Jason Helyer</p>	<p>Sign </p> <p>Type or print James A Barlow</p>
<p>Sign</p> <p>Type or print</p>	<p>Sign</p> <p>Type or print</p>
<p>Sign</p> <p>Type or print</p>	<p>Sign</p> <p>Type or print</p>